

# Flamar Standard Cables for Industrial Automation



Available in multiple packaging sizes with small minimum order quantities, Flamar provides a complete selection of cables for all industrial automation applications while utilizing in-house design and manufacturing to meet and exceed the most stringent quality requirements at a competitive cost

## Features and Benefits

All cables are UL AWM/CSA recognized or UL listed	Delivers a complete selection of cables that adhere to the de-facto reliability standard for industrial automation cables
Several jacket materials available (PVC, WSOR*, PUR and TPE)	Enhances design and application flexibility. Ensures the correct cable for the required application features is available
Cables designed for Flexible or Drag-Chain installation	Solves almost all installation issues
Temperature ranges for multiple applications down to -40°C (-40°F) and up to 105°C (221°F)	Withstands wide temperature range. Delivers operational flexibility
Cross sections range from 0.25mm <sup>2</sup> (AWG 24) to 2.5mm <sup>2</sup> (AWG 14) for Signal & Control, 1.5mm <sup>2</sup> (AWG 16) to 6.0mm <sup>2</sup> (AWG 10) for Servo Motor, and from 0.14mm <sup>2</sup> (AWG 26) to 0.5mm <sup>2</sup> (AWG 20) for Network Cables	Ensures the most common cross sections for industrial automation applications are available in the cable offering
Flame-retardant compliance with UL Vertical Flame Test, UL VW-1, and CSA FT-1 up to CSA FT-4	Ensures safety for out-of-the-cabinet use



Flamar Standard Cables (from top to bottom): Signal & Control, Servo Motor, Network



Flamar standard cables for industrial automation brochure  
[English 987651-3992](#)  
[Chinese 987651-4141](#)

## Applications

### Industrial Automation —

#### Line and Machine Builders

- Sensors: Brad® M8 and M12 Connectors
- Valves: mPm® DIN Valve Connectors
- Ethernet: Brad® M12 Connectors
- Servo Motors: Brad® M23 Connectors
- Control Cabinets:
  - GWconnect® Heavy Duty Connectors
- Auxiliary Power: Brad® Mini-Change

#### Industrial Factory Automation

- Material Handling

#### Non Automotive/Commercial Vehicles



Sensors, valves and control cabinets



Servo Motors



Smart I/O modules

\*Weld-Slag and Oil-Resistant

# Flamar Standard Cables for Industrial Automation

## Specifications

### SIGNAL AND CONTROL

Series	Environment	Installation	Halogen Free	Temperature Rating (Min   Max)		Voltage	Bending Radius	Jacket Material	Shielded	Approval
<a href="#">155210</a>	Standard	Flexible	No	+5°C	+80°C	300V	> 15xOD	PVC	No	UL AWM 2464/CSA
<a href="#">155211</a>				Yes						
<a href="#">155220</a>	Severe	Drag Chain		-25°C		600V	> 7.5xOD	WSOR*	No	UL AWM 21215/CSA
<a href="#">155221</a>				Yes						
<a href="#">155230</a>	Harsh		Yes	-40°C	1000V	PUR		No	UL AWM 21223/CSA	
<a href="#">155231</a>								Yes		
<a href="#">155240</a>	Severe		No	-40°C	+105°C	300V	> 10xOD	TPE	No	UL Listed PLTC
<a href="#">155241</a>									Yes	

### SERVO MOTOR

Series	Environment	Installation	Halogen Free	Temperature Rating (Min   Max)		Voltage	Bending Radius	Jacket Material	Shielded	Approval
<a href="#">155311</a>	Standard	Flexible	No	+5°C	+80°C	1000V Power 600V Feedback	> 15xOD	PVC	Yes	UL AWM 2570/CSA
<a href="#">155321</a>	Severe	Drag Chain		-25°C				WSOR*		UL AWM 21939/CSA (Power) UL AWM 21215/CSA (Feedback)
<a href="#">155331</a>	Harsh		Yes	-40°C			PUR	UL AWM 21223/CSA		

### NETWORK

Series	Environment	Installation	Halogen Free	Temperature Rating (Min   Max)		Voltage	Bending Radius	Jacket Material	Shielded	Approval
<a href="#">155411</a>	Standard	Flexible	No	+5°C	+60°C (CC-Link)	300V	> 15xOD	PVC	Yes	UL AWM 2464/CSA
<a href="#">155421</a>	Severe	Drag Chain		-10°C	+60°C (PROFIBUS) +70°C (PROFINET)	600V		WSOR*		UL AWM 21215/CSA
<a href="#">155431</a>	Harsh			Yes	-20°C	+60°C (EtherNet/IP)		300V		PUR

\*Weld-Slag and Oil-Resistant

## Packaging Options

